



**NATIONAL ISSUE**  
DECEMBER 1960



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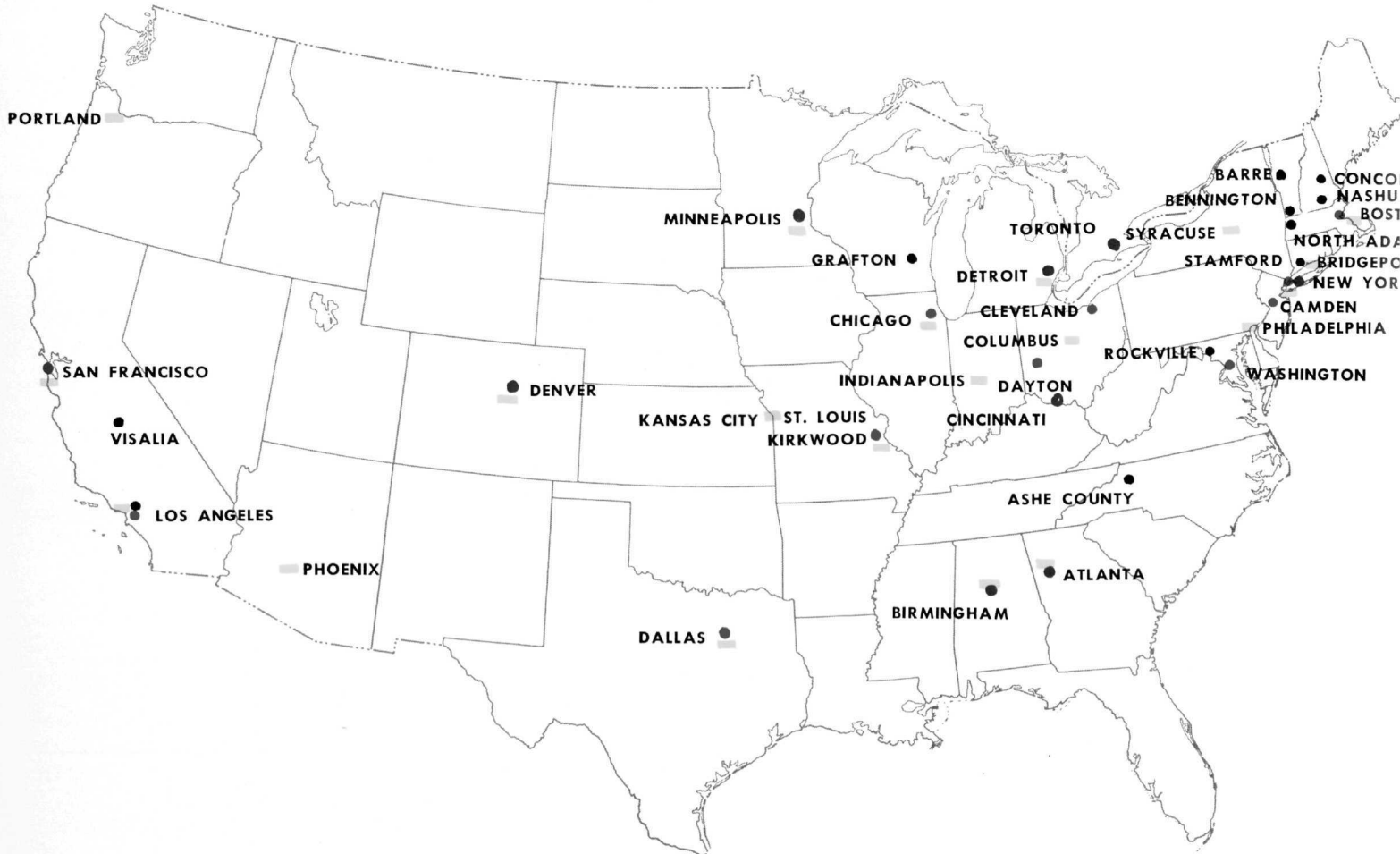
SPRAGUE ELECTRIC COMPANY

NORTH ADAMS, MASSACHUSETTS



# SPRAGUE

FACILITIES ARE NATIONWIDE



## Key

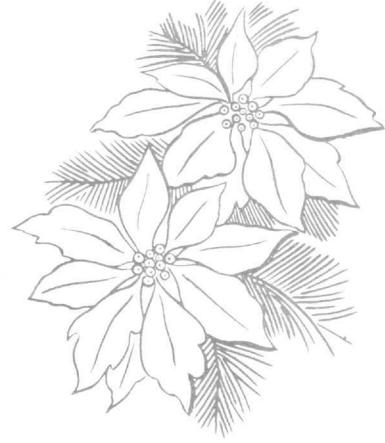
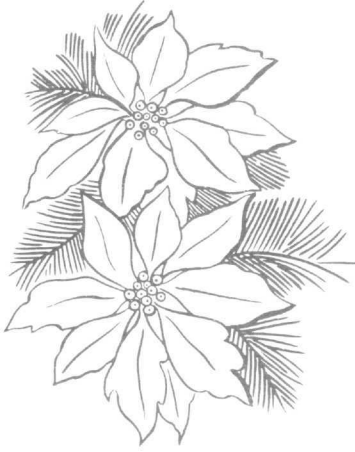
- Sprague Factories
- Sprague Electric Sales Offices
- Sprague Electric Sales Representatives
- Sprague Products Sales Representative

## OTHER SPRAGUE OPERATIONS ARE LOCATED IN:

MILAN, ITALY  
PONCE, PUERTO RICO  
APULYCEA, MEXICO  
HONG KONG



# Season's Greetings



During this holiday season, when we turn our thoughts toward the strengthening of family ties and the sharing of our blessings, it is fitting that we take stock of the events of the past year, and appraise the promise of the future.

Here at Sprague Electric, 1960 has been a year of substantial progress business-wise, but at the same time it has been a period of great sadness in the loss of our President and of two valued members of our Board of Directors.

We all shared a deep sense of personal loss in the passing of my brother, Julian K. Sprague in September. Joining the Company shortly after it was founded in 1926, he had served as President since 1953. As a key member of our executive group, he helped contribute to our growth and progress over the years.

Mr. Frank A. Bond and Mr. Harry C. Robbins also passed away during 1960. These gentlemen had served constructively as members of our Board for many years. Their highly valued contributions to our progress will be sorely missed.

In an effort to build soundly and strongly for the future, the Company's Board of Directors in November elected a new President and at the same time made several important appointments among our executive ranks. Mr. Ernest L. Ward, our new President, has the good wishes of all members of the Sprague team. Announcements of the appointment of four Senior Vice Presidents, four Vice Presidents, two new Directors, and a Consultant, are contained elsewhere in this issue.

Assumption of new duties by these gentlemen will provide effective and imaginative leadership in expanding our business and maintaining the strong position which your Company holds.

The year 1960 appears to have been a satisfying one from a business viewpoint. Our tempo of activity was fast during most of the year, but with an easing of the pace as we entered the Fall months. It now appears that our sales volume for the year will be in excess of \$60 million, and this is also an all-time high.

Costs associated with our activities also have been high for 1960, and we must all share in constructive efforts to see that these remain at sound levels, insuring a healthy basis of continued growth and opportunity in the future.

The fact that we have grown and progressed during the year is a continuing reflection of the fine cooperative spirit of our employees. To them and to their families, and in behalf of the Company, I extend a sincere wish for a joyous Christmas and a bright New Year.

*Robert K. Sprague*

Chairman of the Board  
and  
Chief Executive Officer

## RECENT EXECUTIVE CHANGES



**ERNEST L. WARD**  
President

Mr. Ward joined Sprague Electric in February, 1946 as a member of the executive staff and was made a Vice President in September of that year. He was elected to the Board of Directors in March, 1947, and since 1953 has been Executive Vice President in Charge of Manufacturing.

Prior to joining Sprague Electric, Mr. Ward, who was graduated from Princeton University in 1929, had been a general partner with F. S. Moseley & Co., Chicago investment bankers, for whom he served as a specialist in analyzing, studying, and reporting on operations of large corporations financed by that concern.

**WILLIAM J. NOLAN**  
Senior Vice President, Legal

Mr. Nolan, a graduate of Yale University and Yale Law School, has served continuously with the Company since its incorporation in 1926. He has been a member of the Board of Directors since the organization meeting in May of that year, and also has served continuously as the Secretary, Clerk, and General Counsel.

He was named Vice President of Industrial Relations in 1953. In April of this year he became Vice President, Legal at his own request and relinquished his Industrial Relations duties. He is a member of the executive committee of the industrial relations department of the Electronic Industries Association.



**NEAL W. WELCH**  
Senior Vice President, Marketing and Sales

Mr. Welch, a North Adams native, is a graduate of the Bentley School of Accounting and Finance and has been associated with Sprague Electric since 1932. He originally served in the Accounting Department and transferred to the Sales Department in 1935.

He was named Sales Office Administrator in 1942 and in 1952 was promoted to Director of Sales. Since 1953, he has been Vice President in Charge of Sales. He currently is chairman of the capacitor subdivision of the parts division of the Electronic Industries Association.



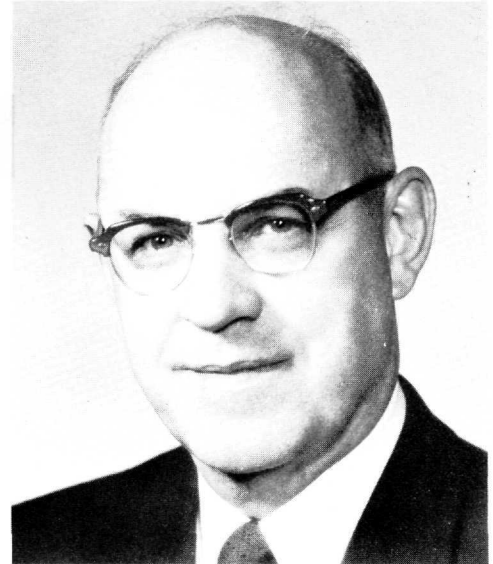


# BROADEN COMPANY MANAGEMENT

## **DR. WILBUR A. LAZIER** Senior Vice President and Technical Director

Dr. Lazier joined the Company in 1953 as a Vice President and Technical Director. A graduate of the University of Illinois, he also holds a Ph.D. degree from the University of Wisconsin.

Before joining Sprague, he served as director of chemical research and development for the Charles Pfizer Co. and as a member of its board of directors. He also had been associated for many years with E. I. duPont deNemours Co., and with the Southern Research Institute. Currently he is a member of the Research Committee of the National Association of Manufacturers.



## **ROBERT C. SPRAGUE, JR.** Senior Vice President, Industrial Relations

Robert C. Sprague, Jr., was a member of the class of 1945 at Williams College and received a master of science degree in 1958 from the graduate school of Industrial Management at Massachusetts Institute of Technology as a Sloan Fellow. He joined the company in 1944, served in various management positions, and was appointed Director of Industrial Relations last April.

He has been a member of the Board of Directors since 1953. He now is a member of the executive committee of the Industrial Relations Department of the Electronic Industries Association and of that association's Walsh-Healey policy committee and parts division executive committee. He also is a member of the Industrial Relations Committee of the National Electrical Manufacturers Association and is the Company's NEMA voting representative.



## **JOSEPH A. ERICKSON** Director

Mr. Erickson is the president of the Federal Reserve Bank of Boston and is president elect of the New England Council. He is a former executive vice president of the National Shawmut Bank of Boston, and has been a director of the Boston Edison Company and a number of other banking and industrial institutions.

Mr. Erickson has also been actively associated with many community and charitable endeavors. He is a Fellow of the American Academy of Arts and Sciences; member of the corporation, Northeastern University; member of the visiting committees of Harvard University and Lowell Technological Institute; and vice chairman, Greater Boston Economic Study Committee.



# LONG EXPERIENCE provides



**DR. JEROME B. WIESNER**

**Director**

Dr. Wiesner, director of the Research Laboratory of Electronics at the Massachusetts Institute of Technology, has been a consultant to Sprague Electric since 1957. He has been a leader in the rapid development of communication sciences and is a member of President Eisenhower's Science Advisory Committee.

In 1948, Dr. Wiesner was awarded the President's Certificate of Merit, the second highest civilian award, in recognition of "outstanding services to his country." He served on the committee that prepared the Gaither Report and was a staff director of the American delegation to the 1958 Geneva Convention on the prevention of surprise attack. Dr. Wiesner is also a Fellow of the American Academy of Arts and Sciences.

**DAVID B. PECK**

**Vice President, Special Products**

Mr. Peck, who has been associated with Sprague since 1943, is a graduate of Rensselaer Polytechnic Institute, where he majored in chemical engineering. Before joining the local firm, he was with E. I. duPont de Nemours as a Chemical Engineer.

With Sprague, he has served as a Patent Engineer and as a Supervisory Engineer in the Research and Engineering Department. He was named Manager of the Special Products Division when it was established in 1958.



**HOLLIS R. WAGSTAFF**

**Vice President, Fiscal**

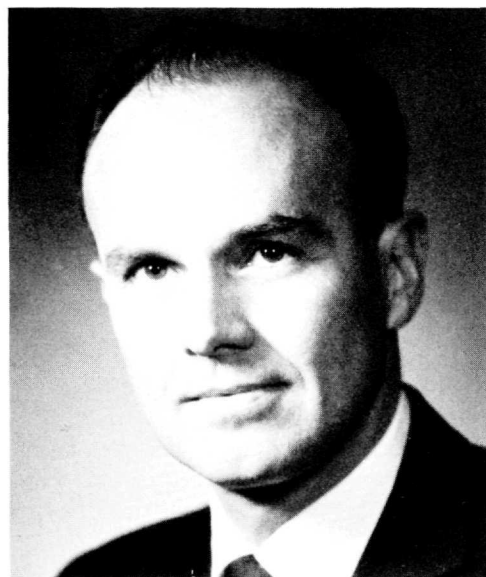
Mr. Wagstaff has been Assistant Treasurer of the Company since 1953. He had served previously for 10 years with the accounting firm of Patterson, Teele, & Dennis, the Company's firm of auditors. He also had been associated for 17 years with the F. W. Lafrentz Co. of New York as a Certified Public Accountant, and was at one time President and Director of the Seaboard Packing Co. He is a graduate of the Vannain Accounting Institute.

# effective and imaginative leadership

## **CARROLL G. KILLEN** Vice President, Industrial and Military Sales

Mr. Killen joined the Company in 1947 as an Application Engineer and subsequently was promoted to Chief Application Engineer. For the past several years he has served as Manager of Field Engineering.

Before coming here he was associated with the Magnolia Petroleum Corp., the U. S. Army Signal Corps engineering laboratories, and the Watson Laboratories. He is a graduate of Louisiana Northwestern State University and completed graduate work at Louisiana State University.



## **BRUCE R. CARLSON** Vice President, Corporate Planning and Systems

Mr. Carlson, a graduate of Leland Stanford University, did graduate work at Northwestern University. He joined Sprague in 1953 as Statistical Assistant to the President, after previously having been a financial analyst with Stein, Roe, and Farnham, Chicago investment counselors, and an instructor in business statistics at Northwestern University.

He is a member of the policy committee in the marketing data department of the Electronic Industries Association and is a member of the parts division executive committee of the EIA.



## **DR. JERROLD ZACHARIAS** Consultant

Dr. Zacharias is a distinguished nuclear physicist and is currently a professor of physics at the Massachusetts Institute of Technology. After earning his Ph.D. at Columbia University in 1932, he dedicated himself to the study of the shapes of nuclei. Later he joined the staff of the Radiation Laboratory at M.I.T. In 1944 he went to Los Alamos to direct the engineering division work on the atomic bomb.

Dr. Zacharias returned to M.I.T. in 1945 to establish the laboratory for Nuclear Science which he subsequently directed for ten years. He was awarded the President's Certificate of Merit in 1948 and in 1955 received the Department of Defense Certificate of Appreciation—its highest civilian honor. He is also a member of the National Academy of Sciences.



# Annual Service Awards

The Sprague Electric Service Award Program has grown substantially in recent years. The formal program was initiated in 1948, although service recognition was started in 1946 for employees with 5-10-15-20 years of service.

Under the present program awards of pins are made for 5, 10, 15, 20 and 25 years of Service. Those who are to receive a 25 year award attend the Quarter Century Club Banquet in North Adams. Recipients are presented a 25 year pin, a gold wrist watch, and a certificate symbolizing membership in the Club. The Quarter Century Club was organized in 1951 with 6 members and now has attained a membership of 182.

## 1960 SERVICE AWARDS

### OPERATION:

North Adams, Massachusetts and Bennington, Vermont  
Branch Sales Offices and Representatives  
Concord, New Hampshire  
Nashua, New Hampshire  
Ashe County, North Carolina  
Sprague of Wisconsin, Grafton, Wisc.  
Visalia, California  
Los Angeles, California

Years of Service					
25	20	15	10	5	
29	9	26	467	308	
1	—	2	7	4	
—	—	—	3	4	
—	—	—	51	48	
—	—	—	—	104	
—	—	—	—	13	
—	—	—	—	1	
—	—	—	—	3	
Total	30	9	28	528	485



**Nashua Award Presentation**



**North Adams Service Award Dinner**



**Service Award Congratulations at Concord**



**Ashe County Couple joint recipients**





**KEEPERS OF THE PEACE**

## The Minuteman Missile - ICBM

Early in the morning of April 19, 1775, the American Revolution's staunch Minuteman raised his rifle in defense of his country. His shot was heard around the world and gave birth to the "spirit of 76" which reached the hearts of all freedom loving people. Thus started a war of liberation that was to last for five years, and which brought into being these great United States, the symbol of freedom today to the entire world.

Very shortly Twentieth Century Minuteman missiles will be ready to rise in defense of our country, but here the similarity to its predecessor ends. This modern keeper of the peace is the greatest deterrent to aggression in our arsenal. The Minuteman missile is relatively simple to operate, easy to move, handle, hide and protect, and ready to fire on a minute's notice. Minuteman needs no giant derricks, massive blockhouses and colorful but expensive and lengthy count downs. Only the flick of a switch, a tremble of the earth and the Minuteman emerges through its own gush of smoke and flame and in less than twenty minutes will arrive at a predetermined target, up to 6,300 miles away.

Fantastic? It certainly is! The Minuteman missile will be the closest man has yet come to the science-fiction nightmare of push button war.

By 1965 the gigantic liquid-fueled missiles, such as the Atlas and Titan,

as well as the manned aircraft bombers with which we are familiar, will start to "phase out," to be replaced by a new generation of solid-fuel rockets. Minuteman is the pace-setter among this new generation.

The Sprague Electric Company is one of thirteen nationally-known component manufacturers joined in an ultrareliability program to provide electronic parts for the Autonetics Division of North American Aviation Incorporated. The Autonetics Division has responsibility for developing and building the intricate guidance and flight control systems for the Minuteman and has instituted one of the boldest Avionic high reliability programs ever attempted.

Sprague Electric's contribution to the Minuteman missile program, under the Autonetics contracts, is Solid and Foil Tantalum Capacitors manufactured at North Adams, Massachusetts, and Concord, New Hampshire.

Because of Minuteman's importance, the Sprague Electric Company has established a separate grouping of personnel assigned specifically to the Autonetics program. This group is known as the "Minuteman Organization," with the Company's assistant to the President, Mr. Arthur G. Ceely, acting as Project Manager. Within this organization is a "Minuteman Operating Committee" that acts as a steering com-

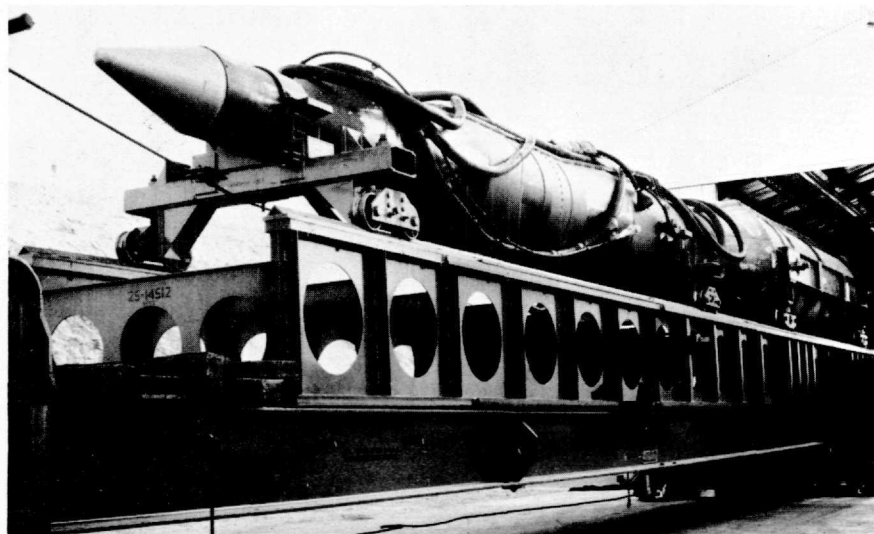


ARTHUR G. CEELY - Assistant to the President of Sprague Electric Company, heads the Company's "Minuteman" organization as Project Manager.

mittee for the Minuteman organization and maintains all contacts with Autonetics Division personnel. Autonetics itself has assigned a Resident Surveillance Engineer to our Marshall Street plant, who performs inspection of finished products and who acts as liaison between the Autonetics organization and the Sprague Electric Company. Sprague Electric has also assigned an engineer on the West Coast to maintain close personal contact with the principal Autonetics facilities in Southern California.

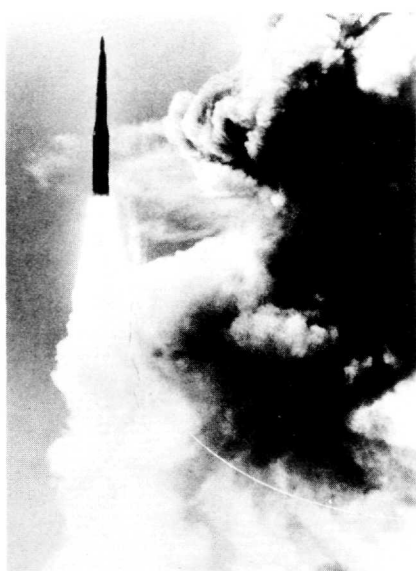
Technical direction and administrative meetings are held monthly, with Sprague Electric and Autonetics personnel, to work on and resolve the multiple testing and control features of a program which ultimately may completely revamp reliability specifications for vital military weapons systems.

Sprague Electric's "Minuteman Organization" includes representatives of Research and Engineering, Accounting and Cost Control, Mathematical Services, Statistical Procedures, Experimental Design, Employee and Community Relations, Production, Technical and Administrative Reporting, Test Equipment Engineering, Quality Assurance and Reliability, and Planning and Methods.



A full scale, flight weight silo test model of the Air Force MINUTEMAN intercontinental ballistic missile on its transporter enroute from the checkout building to the launch site at Edwards Air Force Base, California. Eight consecutive successful launches of such missiles from underground silos have been conducted. MINUTEMAN is being developed by an Air Force-industry team under the executive management of the Air Force Ballistic Missile Division (ARDC) for ultimate use by the Strategic Air Command.

"Trifles make perfection, but perfection itself is no trifle." - MICHAELANGELO



Full scale flight weight model of Minuteman ICBM roars skyward in test launch at Edwards Air Force Base. Note safety restriction of test model by heavy nylon tethering cables allowing flight of only a few hundred yards.

This organization is charged with the responsibility of developing a high reliability product to specifications unimaginable only a few years ago. The Minuteman program calls for an improvement in quality by a factor 100 times that possible in components used in present missiles. This reliability is necessary to satisfy the primary demands of the Minuteman missile, which will stand unattended for months or years in bomb proof, underground launching silos, or may spend long periods traveling over the nation's rail systems on specially built launching trains. At a given signal the Minuteman must leap to life and be capable of withstanding tremendous shock, vibration, thrust, and radical temperature extremes. To this end, Sprague Electric has set aside specially controlled manufacturing and testing areas, instigated a rigid personnel testing and training program for all employee participants, designed and constructed highly intricate manufacturing and quality control equipment, and originated a system of statistical controls for every phase of the program.

Present Air Force plans call for the silo-based Minuteman to become operational in 1962 with the first fifty missile

installation at Malmstrom Air Force Base near Great Falls, Montana. The first train-based missiles are to be ready approximately six months later. If the present schedule is maintained, there should be some 600 Minuteman missiles stationed and ready for firing by the end of 1964. Four hundred fifty of these missiles will be in launching silos scattered across the nation, and the other 150 will be mounted on fifty missile trains that will be roaming over 80,000 miles of our railroad system. Recent indications suggest a substantial increase in the original plan for 600 missiles to possibly twice that amount ultimately.

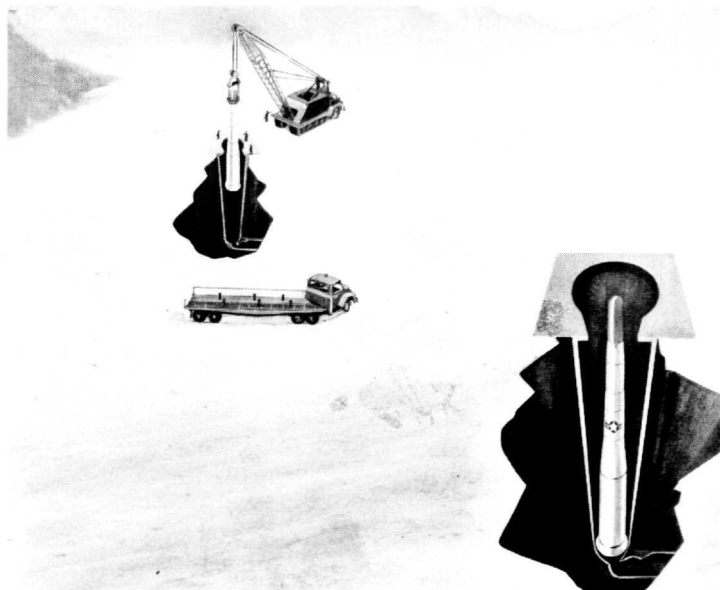
The Minuteman missile construction is under the direct administrative management of three divisions of the Air Force: The Ballistic Missile Division, Air Material Command, and Strategic Air Command. Systems Engineering and Technical Direction for the missile is under the direction of Space Technology Laboratories of Thompson, Ramo Woolbridge Company. Boeing Airplane Company has charge of actual assembly of the missile as well as ground support and area security systems equipment. There are literally thousands of manufacturers all over America contributing to this massive program, names that are familiar

in our daily lives—Bendix, Hercules Powder, Cessna Aircraft, General Motors, Thiokol Chemical, Firestone, Fairchild, Hughes Aircraft, General Electric, Corning Glass, Motorola, Radio Corporation of America and many others.

The concept of the Minuteman is the result of two years of intensive research into the possibility of solid-fuel weapons. Basic advantages of the Minuteman missile program, which was started in 1957, include: cost—should be far less than many other missiles, because of greater reliability in launching and guidance control; invulnerability—the ability to deploy, not only from underground, but by rail, making it virtually impossible for the enemy to find and destroy the missile.

We now have in the Minuteman and similar missiles a deterrent power of such magnitude that for the first time the balance in missile power will lean from the Communists toward the Free World. The day of the liquid-fuel missiles and manned bombers is gradually ending. The Strategic Air Command weapons of tomorrow will be the Minuteman and future generations of similar solid propellant missiles.

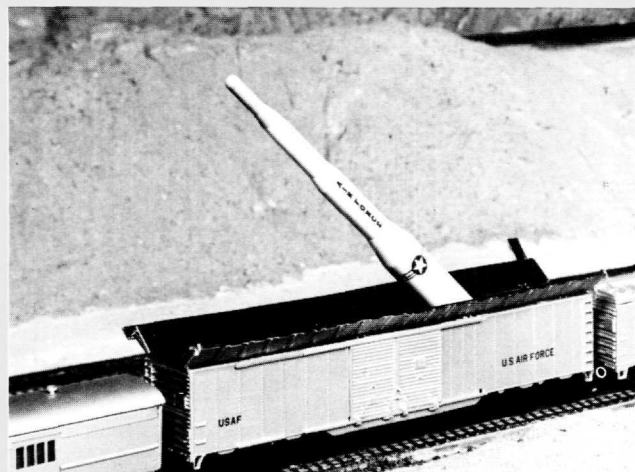
(Watch future issues of the regular Log for specific articles on this important and fascinating program.)



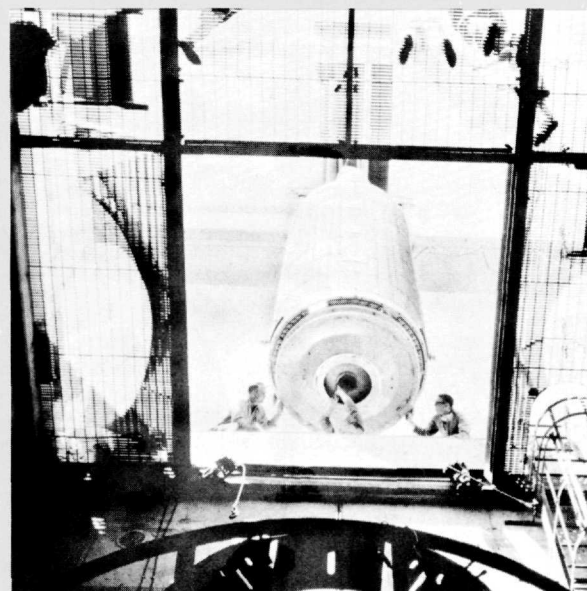
This is an artist's concept of how the MINUTEMAN intercontinental ballistic missile might look deployed in underground silos. In the foreground a MINUTEMAN is standing "at the ready". One of the advantages of the MINUTEMAN is the fact that once deployed in its underground silos it requires little or no maintenance. Automatic equipment will indicate any malfunction in the missile systems or its ground support equipment and an Air Force crew can remove the missile replacing it with another.



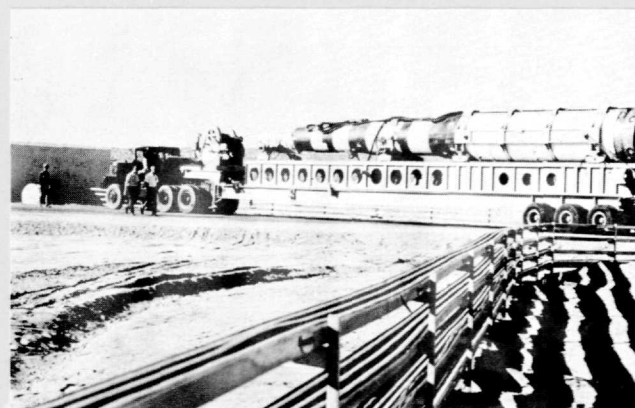
Equipment to handle rocket engines has a space age look. Here, Minuteman rocket engine is lifted by the huge transactor, a specially designed, quarter-million pound vehicle. This giant traveling crane is capable of lifting rocket engines containing 100,000 pounds or more of fuel, transporting and placing them with infinite care.



The missile car depicted here is one of the earlier concepts and does not necessarily depict the eventual operational configuration. When the missile is fully erected and all the systems check "GO" a series of green lights on the launch control console tells the MINUTEMAN crew their "bird" is ready for launch.



MINUTEMAN comes out of the "Incubator" at Thiokol Chemical Corporation. Minuteman rocket engine loaded with fuel is removed from casting pit by crane. Motor now goes to radiographic inspection area and to the test firing area.



A MINUTEMAN is pictured on its transporter en route to the launch site. This is one of the missiles launched in highly successful tests.



## SPRAGUE PRODUCTS COMPANY *27 Years of Progress*

The Sprague Products Company is the distributor's supply subsidiary of the Sprague Electric Company. It was organized in 1933 to increase sales of the Company's products through the use of a new distribution channel.

At that time, the electronic industry was still in its infancy. Home radio receivers, having begun as a product of the earliest do-it-yourselfers containing either a crystal or one or two tubes, had progressed to the point where one could purchase a completely assembled radio. This advance enabled radio to experience great strides as the entertainment it provided became available to people who lacked either the knowledge or the inclination to build their own sets. But, when these sets required repair, there was no neighborhood serviceman to turn to. They had to be returned to the store from which they were purchased. If replacement parts were required, the store obtained them from the set manufacturer.

Orders for replacement parts were small. Although many set manufacturers made their own parts, they were primarily interested in manufacturing receivers, and not interested in small replacement part orders. The few parts manufacturers, of which Sprague Electric was one, were primarily interested in supplying set manufacturers in large volume, and could not easily supply the many retailers with small quantities.

The tradition of American enterprise led to this need giving rise to a new type of business. A few dealers began to

specialize in purchasing parts from parts manufacturers in larger quantity and reselling them to others. These became the first "parts jobbers" of their day or, as they prefer to be called today, "electronic parts distributors".

The Sprague Products Company was organized by Harry Kalker, its first president and sales manager, to make products of the Sprague Electric Company available to these jobbers. Purchasing products from the Sprague Electric Company in large volume, much as any set manufacturer might, Sprague Products packaged in unit quantity for re-sale to these distributors who, in turn, sold them to radio servicemen, radio amateurs, and experimenters.

Since that time, sales of our Company's products through electronic parts distributors have increased tremendously. Today, more sales are made in a single week than were made during the entire first year of this subsidiary's operation.

One reason for this growth is the remarkable growth of the electronic parts distributor, and the ability of Sprague Products Company to keep pace with this growth. Once just a home radio replacement business, it grew to include auto radios, then television, and now, the most challenging frontier, industrial electronics.

Industrial electronics embraces two markets of great importance to Sprague Electric Company which, in many cases, can be served no more efficiently than through the Sprague Products Company.



Harry Kalker  
President  
Sprague Products Company

One of these is the electronic laboratory, most often the research arm of large electronic equipment manufacturers. These laboratories have their own budgets and purchase in small quantity, because their use is developmental rather than production. Hence, whenever possible, they purchase from their local electronic parts distributor from whom they can also receive overnight or same-day delivery. It is important for Sprague to be represented at this stage, for, once a laboratory design is approved, it moves into production from which springs the large volume parts orders so important to the Sprague Electric Company.

Another important market is the small electronic equipment manufacturer. Electronics is and has been a remarkable dynamic industry. It remains as one of the few industries in which a good engineer can start a business in his home, without major capital investment, and reap a fortune in his own lifetime. All such businesses need parts. But which of these small companies will succeed, which will fail, is impossible to determine. Their needs are small, and the Sprague Electric Company cannot serve them all economically. The answer is to make Sprague products available to them through the Sprague Products Company and the electronic parts distributor. As a result, those that grow to be large companies will have been well served to become customers of the Sprague Electric Company tomorrow.

It is interesting to note that the rapid growth in distributor sales to industry, in addition to sales to radio-TV servicemen,



The Order Processing Department edits the order, noting any special standing instructions from the customer, such as preferred methods of shipment, packaging, etc.



Using completely mechanized equipment the Billing Department is able to process invoices soon after the parts are shipped.

has given rise to still another specialty, another business, the industrial electronic parts distributor. Here we find the firm which specialized in sales to industry only, for the aforementioned reasons and for parts required in the maintenance of industrial electronic equipment – to the exclusion of sales to the radio-TV servicemen, the radio amateurs, and the home experimenters. Sensing this trend, many conventional distributors have established separate divisions, with separate sales forces, merely to handle industrial sales.

This industrial electronic evolution calls for a superior master distribution organization. Sprague Products Company has 3 district sales offices and 18 sales representative firms from which some 70 sales engineers and salesmen serve our electronic parts distributors and, in many cases, show them how to conduct their businesses better in the pressing growth problems they have and still are experiencing. Sprague Products distributors are the most outstanding in the United States, leaders in the service and industrial distribution fields over many years of complicated growth problems. A good percentage of them have grown with Sprague as indicated by the large number that were honored in 1958, on the 25th Anniversary of their association with Sprague. The distributors, in turn, have sales forces averaging an estimated five salesmen per distributor, and ranging up to fifty salesmen for the very large distributors. In total, distributor salesmen call on virtually every radio-TV repair shop in the country as well as equipment manufacturers and industrial plants.

To assist in handling this sales complex characterized by fast service, complicated inventory studies, changing price structures, and aggressive merchandising tactics, Mr. Kalker named Albert Coumont as sales manager in June of this year. Mr. Coumont is eminently qualified for the position having long been a participant in this phase of the electronics industry before becoming associated with Sprague Products Company in 1955, first as a Regional Sales Supervisor and later as Assistant to the President. The success of the Sprague

Products sales group can be pointed out no better than by results which show that for many years it has sold many more parts through distributors than any of its competitors. Yet, through all of this growth, the Company's original platform – that of operating the business as one in close, personal touch with its customers – has never changed.

However successful this sales force might be, it could not function at all without the equally capable force which supports it. Sprague Products purchases parts in bulk from the Sprague Electric Company. These are inspected, counted out and, then, individually packaged and stored ready for immediate shipment. The breadth of the Sprague Products line, the most complete in the electronics distribution field, demands that large warehouse facilities be maintained and that there be immediate access to each and every part in this line. Even these extensive facilities are supplemented by ear-marked stocks of industrial electronic parts at the various Sprague Electric manufacturing plants.

The catalog of the Sprague Products Company lists more than 5,300 parts. In the line of the familiar TWIST-LOK replacement electrolytic capacitors for radio and television, there are almost 1,000 parts alone. In disc ceramic capacitors, there are over 500 listings. And this doesn't even begin to cover the paper and paper-film capacitors, resistors, transistors, etc. This will give you some idea of the complexity of the problem faced by Sprague Products in answering the needs of over a thousand



Sprague Products warehousing and packaging operations weigh cartons ready for shipment to customers throughout the country. The long conveyor makes it easier to process orders for shipment.

distributors – immediately! How many of each part to stock can be a vital factor in the success of the entire effort. Stocks are carefully selected on the basis of past movement, forecasts of future movement, and astute business judgment. For example, how would you determine which parts in which sets manufactured today will begin to fail three years from now? And how can you be sure that your replacement of today will not be obsolete by that time? And that you will be out with your replacement far ahead of your competition in order to take care of service problems when most needed?

It has been shown that one of the keys to keeping the distributor and his customers happy is fast order handling. Let's look at what happens to an incoming order from a distributor once it is received by the mail section and its receipt recorded. First, it goes to the Sprague Products Credit Department, under Mrs. Gertrude I. Denoyan, Assistant Treasurer and Credit Manager, who is the senior employe on the Sprague Products staff, having joined the Company in 1933 when the Company was founded. Mrs. Denoyan also serves as Purchasing Agent for Sprague Products and heads the Accounting and Auditing Sections.

Once the order is cleared for credit, it moves to the Operations Section, headed by Richard Lull. The order is edited, and any special standing instructions from the customers are noted, such as preferred methods of shipment, packaging, etc. If the incoming order is on a standard Sprague order form, it goes directly to the order filling group under



With the parts placed on shelves in super-market fashion, orders are quickly processed for shipping to a distributor. Order fillers are shown selecting items from stock.

Najib (Pat) Davis where the material is picked from the shelves in super-market fashion, placed on a conveyor, packed and shipped. As a part of this process, there are regular inspections to make certain that those picking orders from the shelves and packing them do not overlook any item. This section is more familiarly known in factory parlance as the "retail sales department", through long historical association. Mr. Davis prides himself on shipping orders within 24 hours after they reach his desk. Of course, an especially long and complicat-

ed order may take another half day. Also under Mr. Davis' immediate supervision and Mr. Lull's general supervision are the reserved stock warehouse groups and the packaging groups which place the capacitors, resistors, etc., in their appropriate packages.

If the order comes in on the distributor's own order form, it is retyped under Mr. Lull's supervision in the Sprague Products offices before it is sent to Mr. Davis in the Building 11 center of operations.

Once the order is shipped, copies go to the inventory control section in the operations group which is also under the supervision of Dick Lull, where inventories are adjusted accordingly and re-orders from Sprague Electric called for as required. Finished orders are sent to the accounting section, where invoices are prepared and sent to the distributors.

Not all orders come in by mail, Western Union, or teletypewriter service. Many extremely rush orders are telephoned in by the distributors. Kenneth Blanchard, Sales Coordinator under Mr. Coumont, is responsible for this and other types of special customer services. To handle the routine telephone orders, Dot Stein, Archie LoPresto, Ronnie Sacco and Alan Bascomb, a group of four order specialists, literally live on the telephone throughout the day, taking orders, entering them, and giving information to customer expeditors.

Mr. Blanchard is also responsible for handling technical information required by distributors to properly service their



Industrial phone men in action at one of Sprague Products distributors. This is typical of the hustle and bustle of this type of operation where literally hundreds of orders are processed daily.

Continued on Page 18, col. 1

# WHAT PROFITS MEAN TO

## COMPANY RATING

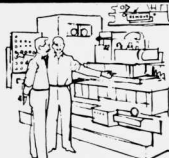
**YOUR  
COMPANY  
MAKING  
GOOD  
PROFITS**

## REPLACEMENT OF WORN-OUT TOOLS AND MACHINERY



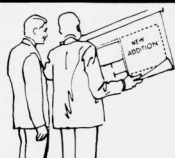
The money a company can set aside for "depreciation" to replace its machinery, isn't enough to buy new machines today. The extra money must come from profits.

## IMPROVEMENT OF PLANT AND EQUIPMENT



Extra profit dollars — and lots of them — are needed if a company is to have the most up-to-date and most efficient equipment for making its products.

## EXPANSION TO SERVICE LARGER MARKETS

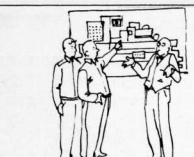


Profit dollars help to build new plants, and additions to existing plants, so that a company can take full advantage of larger markets for its products.

**YOUR  
COMPANY  
MAKING  
POOR  
PROFITS**



The poorer a company's profits are, the less money there is to make up the difference between "depreciation" money and the price tags on new machinery.



Poor-profit companies have less opportunity to keep their machinery up to date and efficient.

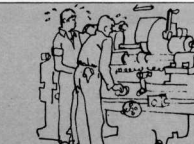


Fewer profit dollars mean there is less opportunity for a company to take advantage of increasing markets in an expanding nation like ours.

**YOUR  
COMPANY  
MAKING  
NO  
PROFITS**



A company with no profits has trouble buying any new machinery at all. Such companies simply must try to keep the old machinery running.



Today it's much harder than ever for a company with no profits to keep up with competitors whose employees use modern, efficient equipment.

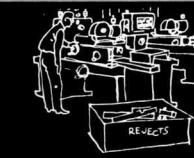


Even with bigger markets in sight, a profitless company finds it very hard to expand...and generally misses the boat altogether.

**YOUR  
COMPANY  
LOSING  
MONEY**



Companies losing money fight a losing battle just trying to keep their aging machinery in repair.



When employees have to use old, obsolete equipment, production costs keep going higher and it gets harder and harder just to stay in business.



A company losing money probably can't even consider expansion in order to take advantage of growing markets.

# YOUR COMPANY'S FUTURE



# YOUR JOB SECURITY

## NEW PRODUCTS PROCESS DEVELOPMENT



Good profits help to give a company the "elbow room" it needs so it can afford to carry on a broad program of research and development of new products.

## PROVISION FOR FAIR DIVIDENDS TO STOCKHOLDERS



When a company makes good profits, so it can pay a fair dividend to its stockholders, the company looks "healthy," and worthy of financial support.

## ABILITY TO BORROW MONEY NEEDED



Any company with good profits, paying good dividends, is in a good position to get help from others if additional money is needed to expand or modernize.

## JOB SECURITY RATING

### YOUR BEST SECURITY



Lower profits mean less "elbow room" for research and for development of new products; there's little chance for any project that won't pay off right away.



Poor profits and small dividends make investors uncertain about risking their money in a company's future.



A reputation for low profits makes it harder for a company to get money from others; also, such a company pays more for the use of money it has to borrow.

### UNCERTAIN SECURITY



Companies with no profits can't afford programs of research; they have to play "follow the leader" ...and get farther and farther behind.



When "no profits" mean "no dividends," investors can quickly lose interest in a company, and transfer their support to another company.



Profitless companies really need money, but they find it's hard to get...and the price they have to pay in order to borrow is very high.

### POOR SECURITY



Money-losing companies probably never had research programs, or allowed them to dry up... thus company and employees face a hopeless future.



Money-losing companies generally don't rate a second look from those who provide financial support.



Companies "in the red" need money most but they find it's almost impossible to get. Would YOU want to lend money to someone who is always broke?

### NO SECURITY NO JOBS!

# IT DEPENDS ON PROFITS

customers. This is particularly true of orders calling for products not listed in the Sprague Products catalog, but which are manufactured by Sprague Electric. Hence, an important function of Mr. Blanchard becomes that of providing liaison on product information and catalog listings between the Sprague Products Company and the Sprague corporate Advertising and Sales Promotion Department, which actually prepares all Sprague Products technical literature and catalogs as well as promotion pieces, direct mail, and merchandising devices.

Now let's look at an order for an industrial part. When Mr. Lull's group types a purchase order to Sprague Electric, copies are sent to the manufacturer or stocking plant together with all necessary papers so that the order can be shipped directly to the distributor from the plant, thereby saving valuable time in getting parts on the way to the ultimate user who has ordered through his distributor. If the distributor order calls for a non-stock part, appropriate orders are placed on the factory and the order may be shipped either to the central warehouse or directly to the customer from the factory, depending upon the particular circumstances. In every case, the emphasis is on getting products shipped to the distributor as quickly as possible because fast, prompt, and efficient

service is so vital to maintaining this largest, most successful organization of its type in the industry.

No small part in the chain of moving parts from manufacturer to consumer is played by the Sprague corporate Advertising and Sales Promotion Department. Here, under the direction of Sidney L. Chertok, working in close cooperation with Sprague Products, are produced all the packaging and display designs, catalogs, convention exhibits, and a myriad of other items ranging from banners and wall thermometers to inventory guides and "Thank You, Call Again" signs — all necessary in keeping the great number of distributor customers and the distributors themselves sold on Sprague.

A considerable amount of distributor business is based upon impulse buying. Therefore packages of Sprague parts, in either individual cartons or small-lot packages, must be attractive and useful. Sprague Products orange and blue packages are almost as old as the industry itself and are well-known to old-timers and new comers alike. Retaining this identity, which has come to stand for product excellence, while introducing packaging innovations such as plastic boxes, foam liners for product support in shipment and attractive display, convenient dispensing racks, etc., requires constant attention and field study. Consumer and distributor needs must be examined in order to maintain our lead

in this highly competitive field.

Another responsibility of the Advertising and Sales Promotion Department is the preparation of replacement parts manuals, interchangeability guides, etc., for radio-TV replacement. Basic data is compiled by Sprague Products and put into finished form by the corporate A&SP Department, which serves Sprague Products much like an advertising agency serves its clients. Orders for literature from distributors are processed by this department which must, in turn, stock and deliver to Sprague Products shipping facilities. Distributors use this literature to aid selling to their own customers. Many of them, however, prefer to publish their own catalogs. For them, the A&SP Department will furnish layouts, copy, and illustrations. Then, there are syndicated industry-type catalogs, such as Electronic Engineers Master and HEPCO, which are produced by a central organization and imprinted with a distributor's name and cover for shipment to his customers. The A&SP Department must provide the content for these, too.

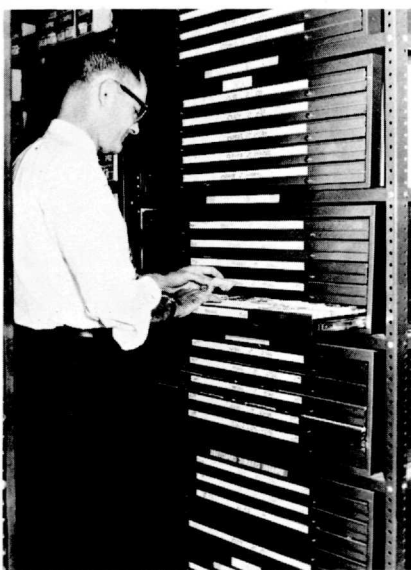
Another interesting work of the A&SP Department is the news bulletin, *Sprague New Item News*, which is sent to all distributors monthly. A popular feature of this bulletin is a merchandising column by Al Coumont entitled "Coumont's Corner".

Sprague Products Company also has an advertising agency which prepares advertisements for magazines directed specifically to the replacement market. This firm, The Harry P. Bridge Company, has served the Company since it was founded. Sprague Products Company advertising prepared by The Harry P. Bridge Company has brought exclusive distinction to the Company from the National Alliance of Television Electronic Servicemen's Association. Sprague Products is the only replacement parts supplier which has been so honored by the servicing profession for six consecutive years. The Bridge organization also serves Sprague Electric so that the trade magazine advertising program, under the supervision of Mr. Chertok, is well coordinated with the efforts of the Sprague Electric Company. Sprague Electric advertisements on industrial stock parts, for example, always call attention to the distributor as a ready local source for these parts in order to promote placement of small-order, fast-delivery service through distributors.

Thus the Sprague Products Company has grown in scope and size in 27 years, built on individualized service, and is the largest operation of its kind in the electronics industry serving the continually growing components parts field.



Sprague Products Ceramiccenters and Resistorcenters make ceramic capacitors and resistors easily accessible. Such Servicenters are especially designed to quickly dispense the varied products distributed by Sprague Products.



Sprague Products service centers provide the distributors with attractive and effective dispensing facilities. This installation is both attractive and highly useful and is just one of the distributor services made available by Sprague Products.

# SPRAGUE PRODUCTS

## CAPACITORS

Electrolytic  
Paper  
Plastic Molded Tubular  
Ceramic  
Mica  
Tantalum  
Film

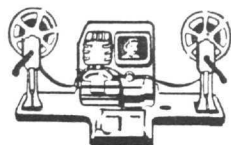
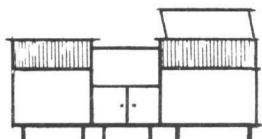
## OTHER COMPONENTS

Printed Circuits  
Pulse Transformers  
Shift Registers  
Radio Noise Filters  
Pulse Forming Networks  
Resistors  
Transistors

## SPRAGUE MARKETS

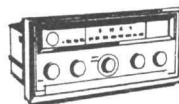
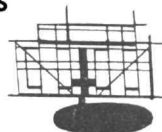
### ENTERTAINMENT

RADIO  
TELEVISION  
PHONOGRAPHS  
PHOTOGRAPHY



### MILITARY

RADAR  
AIRPLANES  
RADIO  
MISSILES



### COMMERCIAL

DATA PROCESSING  
HEARING AIDS  
BUSINESS MACHINES  
LIGHTS

The principal ingredients of Sprague products are technical knowledge, engineering skill, and careful workmanship. Sprague products are light in relation to their value, and the Company economically serves an ocean-to-ocean market of electrical equipment manufacturers.

The rapid development and dynamic change which characterize the electrical industry require that makers of components maintain flexible production schedules and prompt deliveries.



**THIS NOTICE  
WAS ACTUALLY POSTED  
IN AN AMERICAN FACTORY  
IN 1872  
AS A POLICY STATEMENT  
FOR EMPLOYEES OF  
THE MOUNT CORY CARRIAGE  
AND WAGON WORKS**



## **NOTICE TO EMPLOYEES!**

**Effective September 15 the following rules will apply:**

- 1** Office employes will daily sweep the floors, dust the furniture, shelves, and show-cases.
- 2** Each day fill lamps, clean chimneys, and trim wicks. Wash the windows once a week.
- 3** Each clerk will bring in a bucket of water and a scuttle of coal for the day's business.
- 4** Make your pens carefully. You may whittle your nibs to your individual taste.
- 5** This office will open at 7 A.M. and close at 8 P.M. daily, except on the Sabbath, on which day it will remain closed. Each employe is expected to spend the Sabbath by attending Church and contributing liberally to the cause of the Lord.
- 6** Men employes will be given an evening off each week for courting purposes, or two evenings a week if they go regularly to Church.
- 7** After an employe has spent 13 hours of labor in the office, he should spend the time reading the Bible and other good books while contemplating the Glories and building up of the Kingdom.
- 8** Every employe should lay aside from each pay a goodly sum of his earnings for his benefit during his declining years, so that he will not become a burden upon the charity of his betters.
- 9** Any employe who smokes Spanish cigars, uses liquor in any form, gets shaved at a barber shop, or frequents pool and public halls, will give me good reason to suspect his worth, intentions, integrity, and honesty.
- 10** The employe who has performed his labours faithfully and without fault for a period of five years in my service, and who has been thrifty and attentive to his religious duties, is looked upon by his fellowmen as a substantial and law abiding citizen, will be given an increase of five cents per day in his pay, providing a just return in profits from the business permits it.

The National Issue of the Sprague LOG is published semi-annually in December and March for the employes of the Sprague Electric Company. This National issue supplants the regular monthly publication of the following plant papers:

Sprague Log, North Adams, Massachusetts  
Telecast, Nashua, New Hampshire  
Concordian, Concord, New Hampshire  
Topics, Ashe County, North Carolina  
Telenews, Grafton, Wisconsin  
Pacific, Visalia and Los Angeles, California

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